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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Josephus Arnoldus Henricus Kahlman

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EXAMINER

ARMOUCHE, HADI S

ART UNIT

PAPER NUMBER

2432

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/520,202	<b>Applicant(s)</b> KAHLMAN ET AL.	
	<b>Examiner</b> HADI ARMOUCHE	<b>Art Unit</b> 2432	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This communication is in response to applicant's amendment filed on 12/18/2008. Claims 1-16 have been amended. Claims 1-16 remain pending.
2. Applicant's amendment to the drawings obviates previously raised objection under 37 CFR 1.83(a) for minor informalities. Objection to the drawings is hereby withdrawn.
3. Acknowledgement to the amendment of the abstract of the disclosure. The abstract has been reviewed and entered.
4. Acknowledgement to the amendment of claims 1-16. The amendment has been reviewed and entered and the amendment to claims 1 and 16 found obviated to previously raised objection for minor informalities. Objection to claims 1 and 16 is hereby withdrawn.
5. Applicant's amendment to claims 5 and 14 are not found obviating to previously raised rejection under 35 USC 112 second paragraph. Please see below for further details.
6. Applicant's arguments on pages 10 and 11 of the remarks regarding the 35 USC 101 rejection of claim 15 are not persuasive. Rejection of claim 15 under 35 USC 101 is maintained. Applicant is encouraged to define the security module in the claim to be only a hardware and avoid the possibility of interpreting it to be a software. Please see below for further details.

### ***Specification***

7. The amendment filed on 12/18/2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: in paragraph 42 [the EEPROM data (including the Asset Key  $A_k$  is decrypted in decrypter D with the CID key and .....)]. Applicant is required to cancel the new matter in the reply to this Office Action or point out to the examiner where in the original disclosure this is taught.

8. The use of the trademark "*Hitachi*" has been noted in this application (page 11 line 32). It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Response to Arguments***

9. Applicant's arguments filed on 12/18/2008 have been fully considered but they are not persuasive.

10. In response to applicant's argument that the references (Kahlamn) fail to show certain features of applicant's invention, it is noted that the feature upon which applicant relies (i.e., a memory, separate and distinct from the storage unit) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988

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F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). However, Kahlamn in paragraph 0001 teaches that the record carrier has two separate areas and figure 1.

11. It has been argued (pages 13 and 14 of the remarks) that Kahlamn does not teach that the key is used for restoring the additional information.

12. Applicant's interpretation of the reference is noted. However, Kahlamn in paragraphs 0010 and 0023 teaches the usage of the key in descrambling the information and hence restoring it to its original form.

***Claim Rejections - 35 USC § 112***

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 5 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 which depends on claim 3 recites the limitation "...the expiration date.." in line 3. There is insufficient antecedent basis for this limitation in the claim. Claim 3 (which claim 5 depends on) doesn't mention the expiration date. For the purpose of examination, examiner assumed that claim 5 depends on claim 2. Similarly for claim 14 which depends on claim 11 recites the limitation "...the expiration date.." in line 3. There is insufficient antecedent basis for this limitation in the claim. For the purpose of examination, examiner assumed that claim 11 depends on claim 2.

***Claim Rejections - 35 USC § 101***

15. 35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

16. Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The substitute specification page 22 lines 1-2 states that the invention can be implemented in software per se which is non-statutory subject matter.

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 1, 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahlamn et al. (US 2002/0024905) referred to hereinafter by Kahlamn in view of Pathak et al., "A 25ns 16K CMOS PROM using a 4-Transistor Cell", Cypress Semiconductor Corp, 1985 IEEE International Solid-State Circuits Conference, Digest of Technical Papers, Volume 28, pages 162-163, Feb 14<sup>th</sup>, 1985 referred to hereinafter by Pathak.

19. Regarding claim 1, Kahlamn teaches *a record carrier [figure 1] comprising an information area for storing information [first area: paragraph 0001], and an integrated circuit comprising a storage unit [second area: paragraph 0001] for storing additional information [key: paragraph 0010], the integrated circuit further comprising a memory*

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[paragraph 0006 and claim 6] *comprising a resurrection key for use in restoring (descrambling) the additional information* [paragraph 0023 lines 4-6].

Kahlamn does not explicitly teach that *the one-time programmable memory having a substantially larger data retention time than the storage unit*. Pathak teaches a *one-time programmable memory (CMOS PROM) having a substantially larger data retention time than the storage unit* [page 162, right column, 2<sup>nd</sup> paragraph where the data retention remains 400,000 years compared to the storage unit with EEPROM with 10 years retention as further explained in claim 9].

At the time of the invention, it would have been obvious to an ordinary skill in the art to combine Pathak's teaching in Kahlamn's record carrier. The motivation/suggestion would have been to improve speed, optimize cell and enhance reliability of the memory used to retain data for a long period of time under normal/natural conditions [Pathak, page 162 left column first paragraph and right column 2<sup>nd</sup> paragraph].

20. The integrated circuit of claim 16 has the same limitations as the record carrier of claim 1 and hence same rejection rationale is applied.

21. Regarding claim 10, Kahlamn teaches that *the integrated circuit is contactlessly readable* [paragraph 0008].

22. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahlamn in view of Pathak in further view of Lee et al. (US 6,266,481) referred to hereinafter by Lee.

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23. Regarding claim 2, the combined teachings of Kahlamn and Pathak do not explicitly teach *a record carrier wherein the one-time programmable memory further comprises information related to the expiration date of the information stored or to be stored in the information area*. Lee teaches *a memory further comprises information related to the expiration date of the information stored or to be stored in the information area* [col 13 lines 1-13].

At the time of the invention was made, it would have been obvious to an ordinary skill in the art to combine Lee's teachings to Kahlamn and Pathak's record carrier. The motivation/suggestion would have been to determine the status of the information and whether it can be accessed or not [Lee,col 13 lines 1-13 and abstract].

24. Regarding claim 3, Kahlamn teaches that *the record carrier further comprises a disc key* [device key: paragraph 0027 lines 24-25].

25. Regarding claim 4, Kahlamn teaches that *the resurrection key is encrypted with the disc key* [paragraph 0027 last 8 lines].

26. Regarding claim 5, although Lee teaches an expiration date of the information stored in the memory (information area), Lee does not explicitly teach that *the expiration date is encrypted with the disc key*. However, it will be obvious to encrypt the date for added security [Kahlamn, paragraph 0027 last 8 lines].

27. Regarding claim 6, Kahlamn teaches that *the disc key is a unique disc key that is derived from an identifier (communication channel information) of the integrated circuit* [paragraph 0010 lines 4-10].



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28. Regarding claim 7, Kahlamn teaches that *the memory further comprises the identifier* [paragraph 0010 lines 4-10].

29. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kahlamn in view of Pathak in further in view of Chow et al. (US 3,028,659) referred to hereinafter by Chow.

30. Regarding claim 8, the combined teachings of Kahlamn and Pathak do not explicitly teach *a record carrier wherein the one-time programmable memory is realized in fuse-logic*. Chow teaches that the *programmable memory is realized in fuse-logic* [col 2 lines 49-52].

At the time of the invention was made, it would have been obvious to an ordinary skill in the art to combine Chow's teachings to Kahlamn and Pathak's record carrier. The motivation/suggestion would have been to provide for field reliability and flexibility in the memory [Chow, col 1 lines 31-32].

31. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kahlamn in view of Pathak in further in view of Xiang et al. (US 6,369,421) referred to hereinafter by Xiang.

32. Regarding claim 9, the combined teachings of Kahlamn and Pathak do not explicitly teach *a record carrier wherein the storage unit is an EEPROM having a data retention time of approximately 10 years*. Xiang teaches *an EEPROM having a data retention time of approximately 10 years* [col 1 lines 57-64 and col 5 lines 61-62].

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At the time of the invention was made, it would have been obvious to an ordinary skill in the art to combine Xiang's teachings to Kahlam and Pathak's record carrier. The motivation/suggestion would have been to meet the conventional data requirements of the EEPROM [Xiang, col 1 lines 59-60].

33. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahlamn in view of Pathak and Lee in further in view of Talagala (US 2002/0162057).

34. Regarding claim 11, Kahlamn teaches *a method of restoring the additional information stored in the storage unit present on the integrated circuit of the record carrier* [abstract], *the method comprising the steps of:*

*reading out (transmitting and receiving) the additional information stored in the storage unit* [abstract];

However, the combined teachings of Kahlamn and Pathak do not explicitly teach *checking the integrity of the additional information and, if the integrity of the additional information is insufficient, reading out the resurrection key stored in the one-time programmable memory and restoring the additional information by using the resurrection key*. Talagala teaches *checking the integrity of the additional information and, if the integrity of the additional information is insufficient, restoring the additional information* [paragraph 0027].

At the time of the invention was made, it would have been obvious to an ordinary skill in the art to combine Talagala's teachings to Kahlamn and Pathak's record carrier.

The motivation/suggestion would have been to be able to reconstruct lost data  
[Talagala, paragraph 0002 last 4 lines].

35. The apparatus of claim 15 has the same limitations as the method of claim 11  
and hence same rejection rational is applied.

36. Regarding claims 12 and 14, Pathak teaches *checking whether the additional  
information (data) has degenerated in a natural way* [page 162, left column, 2<sup>nd</sup>  
paragraph lines 7-9].

37. Regarding claim 13, Talagala teaches the step of restoring the additional  
information by using the resurrection key is performed on the Internet (Host connection)  
via a Secure Authenticated Channel [Figure 1 element 104].

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this  
Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).  
Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE  
MONTHS from the mailing date of this action. In the event a first reply is filed within  
TWO MONTHS of the mailing date of this final action and the advisory action is not  
mailed until after the end of the THREE-MONTH shortened statutory period, then the  
shortened statutory period will expire on the date the advisory action is mailed, and any  
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of  
the advisory action. In no event, however, will the statutory period for reply expire later  
than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to HADI ARMOUCHE whose telephone number is (571)270-3618. The examiner can normally be reached on M-Th 7:30-5:00 and Fridays half day.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. A./  
HADI ARMOUCHE  
Examiner, Art Unit 2432  
03/09/2009

/Benjamin E Lanier/  
Primary Examiner, Art Unit 2432